Environmental Protection Indicators for California (EPIC)

California Environmental Protection Agency

Office of Environmental Health Hazard Assessment

What is the EPIC project?

The Environmental Protection Indicators for California (EPIC) project is a collaborative effort of the California Environmental Protection Agency (Cal/EPA), the Resources Agency, the Department of Health Services, and an external advisory group consisting of representatives from business, public interest groups, academia, and local government. The project, led by Cal/EPA's Office of Environmental Health Hazard Assessment (OEHHA), is responsible for developing and maintaining a set of "environmental indicators" for California.

What are environmental indicators, and why are they important?

Environmental indicators are measurements that track environmental conditions over time. In recent years, more and more states and localities in the United States, as well as countries and international organizations, have developed environmental indicator systems. Examples of environmental indicators include the level of air pollution, volume of solid and hazardous waste deposited in landfills, status of chinook salmon populations, and extent of forest acreage.

Environmental indicators improve our understanding of the environment and how human activities, along with other factors, can influence it. They can be used to gauge progress toward achieving goals to improve environmental quality and reduce threats to human health and natural ecosystems. Environmental indicators are also useful for communicating a great deal of complex information in a simple, concise format.

California has traditionally assessed the success of its environmental programs based on measures of activity, such as the number of permits granted, notices of violation issued, or regulatory standards adopted. Environmental indicators can illustrate the effects these activities have on the environment.

What has the EPIC project accomplished to date?

Following its establishment in 2000, the EPIC project established a process for identifying and selecting environmental indicators. This process generated an initial set of 84 indicators dealing with air quality, water quality, water supply and use, waste management, human health, ecosystem health, pesticide, and transboundary issues.

Sufficient data have been collected for about half of the initial set of indicators to allow the project to assess trends in environmental conditions; these are designated as "Type I" indicators. The remainder either requires more data collection or analysis (Type II indicators) or requires the establishment of a data collection system (Type III indicators). Type II and Type III indicators identify new kinds of data that could improve our understanding of environmental conditions. In the future, policymakers will consider the collection and analysis of data from Type II and III indicators when planning their agencies' activities and programs. The chart below gives examples of each type of indicator.

INDICATOR STATUS	
I. Adequate data collected to assess trends	Number of days with unhealthy ozone, carbon monoxide, and/or particulate matter (PM_{10}) Number of coastal beaches posted or closed Per capita amount of solid waste generation, diversion, and disposal Number of hazardous materials spills and releases Total reported occupational illnesses and injuries associated with pesticide exposure Status of threatened and endangered species Extent of change in range land and forest habitat Air temperature
II. Further data collection or analysis needed to assess trends	Total emissions of toxic air contaminants (TACs) Magnitude of groundwater contaminant plumes Extent of cleanup of illegal solid waste disposal sites Volume of hazardous waste imported or exported Number of growers adopting reduced-risk pest management systems Status of the northern spotted owl
III. No ongoing data collection	Extent of indoor exposure to formaldehyde Number of environmental releases from active landfills Levels of mercury in human blood and other tissues Quantity of endocrine-disrupting chemicals in aquatic ecosystems

What are the next steps for the EPIC project?

The EPIC project is still in its formative stages. On an ongoing basis, the current set of indicators will be evaluated, new indicators will be identified, and existing indicators revised and replaced as appropriate. The project will consider the need for indicators that produce information on specific regions of the state as well as indicators for issues such as sustainability, environmental justice, and pollution prevention.

The EPIC project will publish a progress report outlining its activities on a regular basis. In addition, EPIC project staff will work with the state's environmental agencies to use information from the indicators in developing agency policies, budgets, and strategic plans.

Where can I get more information on the EPIC project?

Please follow the link to the EPIC page on OEHHA's Web site at *www.oehha.ca.gov.*